A Joint Meteorological, Oceanographic and Sensor Evaluation Program

for Experiment S193 on Skylab

EPN 550

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Principal Investigators Management Office
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Attn: Z. H. Byrns, Technical Monitor. Mail Code TF6

Principal Investigator:

Willard J. Pierson
University Institute of Oceanography
City College of New York

Co-investigators - R. K. Moore and E. P. McClain

Monthly Plans and Progress Report

Papers Presented

Papers on the results of S193 to date have been presented at the Spring AGU meeting in Washington by University Institute personnel at a session on Skylab and at the Remote Sensing Meeting at the University of Michigan by the group at the University of Kansas.

Work in Progress

The full data vectors for the following DOY's (Day of Year's) have been provided in punch card form to the Institute by the Kansas group [156-1; 216-1; 216-2; 220-1; 245-1; 252-1]. We are iterating the AVA case once more using better inputs concerning the hurricane wind field, and have completed the meteorological analyses for the other Skylab II passes.

An objective analysis of the wind fields for the SL-III and SL-IV passes will be carried out using the technique developed under this program. We are awaiting the complete file of ship reports for these two periods from FNWF Monterey and are presently editing the pressure, temperature and vapor pressure fields already provided us. Once the wind data become available we will also prepare spectral wave hindcasts for the full periods of SL-III and SL-IV.

SL-IV Data Quality

The problem of the loss of transmitter power during SL-IV has been investigated. Data from late in SL-IV was investigated and found to be consistent with a 20 to 22 db loss for the winds scanned by some of the cells. It now appears that nearly all of the σ°_{VV} and σ°_{HH} data for SL-IV will be useful after correcting for this loss.

Backscatter Theory

A new theory for backscatter is being jointly investigated by Kansas and the Institute (partly supported by Langley in order to close out our AAFE program at CCNY). According to John Claassen, this new result seems to fit the observations from 35° to 50° far better than any previous result.